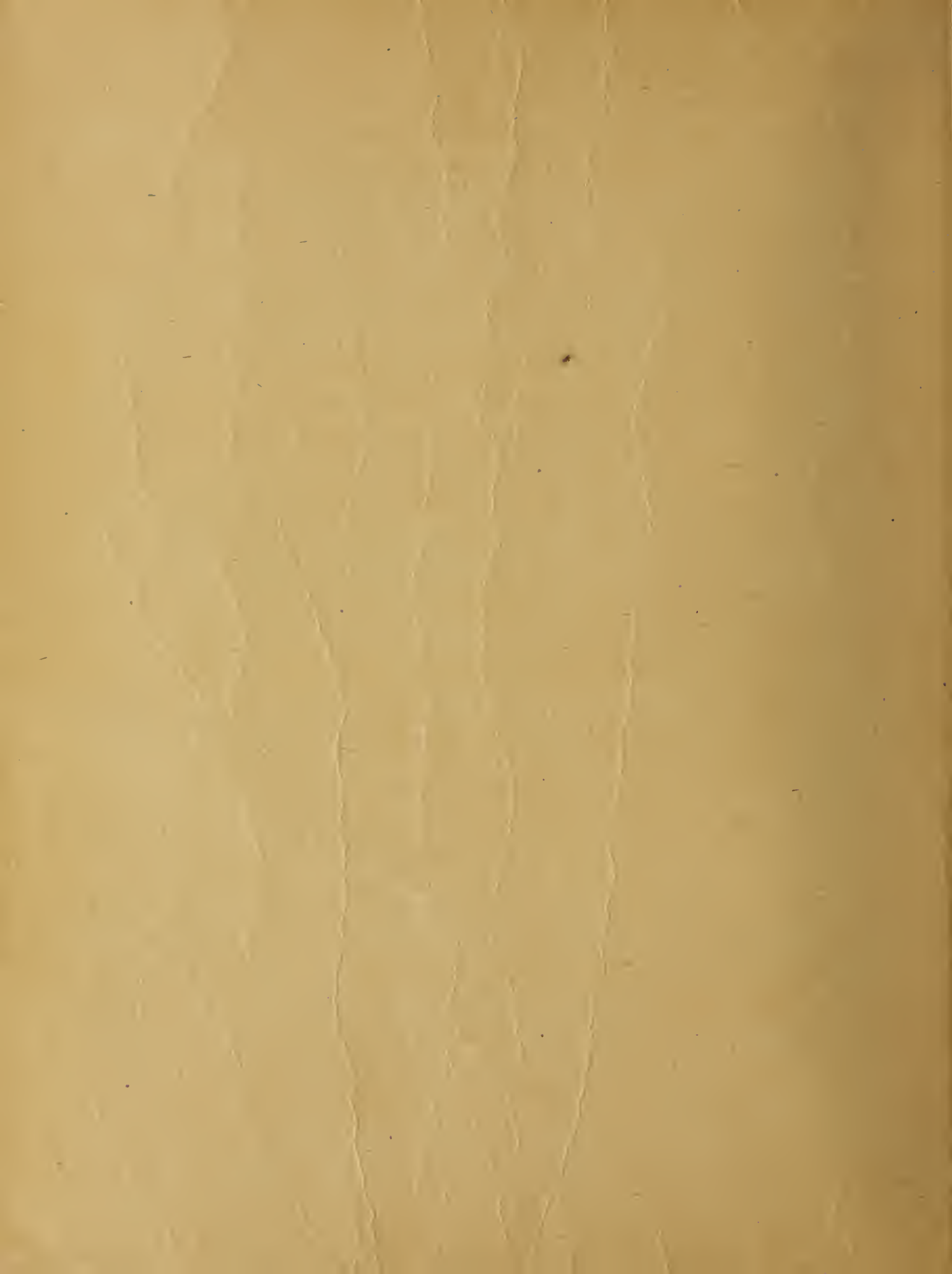


1917  
L 58

Lewis

An Investigation of the Comparative Standing of  
Pupils from One-Teacher Elementary Schools  
and Graded Schools when Working  
Together in the High-School



**AN INVESTIGATION OF THE COMPARATIVE STANDING OF  
PUPILS FROM ONE-TEACHER ELEMENTARY SCHOOLS  
AND GRADED SCHOOLS WHEN WORKING  
TOGETHER IN THE HIGH SCHOOL**

**BY**

**CHARLES DICKENS LEWIS**

**B. Ped., Kentucky Agricultural and Mechanical College, 1901**

---

**THESIS**

**Submitted in Partial Fulfillment of the Requirements for the**

**Degree of**

**MASTER OF ARTS**

**IN EDUCATION**

**IN**

**THE GRADUATE SCHOOL**

**OF THE**

**UNIVERSITY OF ILLINOIS**

**1917**



1917  
L 58

UNIVERSITY OF ILLINOIS  
THE GRADUATE SCHOOL

May 29, 1917

I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER MY SUPER-  
VISION BY Charles Dickens Lewis  
ENTITLED An Investigation of the Comparative Standing of Pu-  
pils from One-Teacher Elementary Schools and Graded Schools  
when Working Together in the High School  
BE ACCEPTED AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE  
DEGREE OF Master of Arts in Education

*J. C. Brown* by *W. C. Bayley*  
In Charge of Thesis  
*W. C. Bayley*  
Head of Department

Recommendation concurred in:\*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

} Committee  
on  
Final Examination\*

\*Required for doctor's degree but not for master's.

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AN INVESTIGATION OF THE COMPARATIVE STANDING OF PUPILS FROM  
ONE-TEACHER ELEMENTARY SCHOOLS AND GRADED SCHOOLS WHEN WORKING  
TOGETHER IN THE HIGH SCHOOL.

\* \* \* \* \*

I N T R O D U C T I O N

The investigations which are reported in the following pages grew out of a desire on the part of the writer to do some little service to the cause of education by throwing some slight additional light upon the problems confronting those persons who are today devoting their energies to the solution of the most important but difficult problem of Rural Education. Having lived and worked for years in the South, where physiographic, economic, and social conditions do not favor a solution of the problem by means of consolidation, (where that demands the transportation of pupils for long distances), he was led to look into the matter of what the one-room, one-teacher school, plus the environment of the open country, can do for the children of the farm in preparing them to take their places in the high school along with those esteemed more fortunate in school advantages.

It is fully realized that there are many factors operating to develop or retard these two types of pupils beside the formal work of the school, but it is hoped that certain phases of the study may help to bring out the relative importance of them.

The chief investigation was carried on in the high schools of Kentucky partly because they are those with whom the



writer is most familiar, and partly because Kentucky is very distinctively a rural state, with very few consolidated schools up to the present time. Only standard four-year high schools were included in the study, and only those having a relatively high proportion of one-room pupils were considered in the final summing up of data and drawing of conclusions. In order to have a basis of comparison the first questionnaire was sent to a number of high schools in the smaller towns of Minnesota because that, too, is a rural state, but one where the one-room schools are much better in most respects than those of Kentucky.

Three studies involving something of the same problem as that attacked in this thesis have been reported recently, one, dealing with conditions in Michigan, by Davis in "School Administration and Supervision" for April 1916, one in the "School Board Journal" for February 1916, concerning itself with the situation in Wisconsin, and one in the Twenty-seventh Biennial Report of the Superintendent of Public Instruction for Indiana, by Mr. Clifford Woody, dealing with the standings of city and country pupils in the Bloomington, Indiana, high school.

These studies were from states where there is a large development of consolidated schools, and it was the desire of the writer to ascertain what the one-room school was doing, not taken at its best, but taken well along towards its worst, as we must recognize we find it in Kentucky at the present time.

It is hoped that there may be something gathered from the data presented in this paper that will be of value in directing future development in rural elementary and high schools, es-



pecially in those sections of the country where consolidation does not seem feasible. At least that it will encourage the poorer sections, and districts of scattered population that they are not hopelessly handicapped in the educational race.







## I

THE CHARACTER OF COMMUNITIES REPRESENTED BY  
THE SCHOOLS FROM WHICH DATA ARE DRAWN

The schools considered in the study are scattered over Kentucky from Lewis county on the Ohio river in the north east to Hickman county on the Mississippi in the extreme west. The twenty-one schools represent eighteen counties, three counties being represented by two schools each. The schools are located in very small villages or small towns, the largest town represented being Madisonville, with a little under 4000 population. All of the physiographic regions are represented except the eastern coal-field or mountain section. In that part of the state high schools are poorly developed, except in a few towns and mining camps, where a very few pupils from the one-room schools are enrolled. The enrollment in the schools studied ranged from 29 to 132, the average being 71.5.

Tuition was free to all of the pupils enrolled in these schools, for, according to the state law pupils finishing the elementary school course must be furnished free high-school education if they demand it. This law is by no means carried out according to its spirit as yet, because of insufficient funds to support enough schools to make them available to pupils in all sections of the state, but all pupils who choose to enter an existing school are given free tuition.

Six of the schools were in good farming communities in the central part of the state, four are on or near the Ohio river in good farming sections, three are in the cavernous lime-



stone section of the western part of the state, five are in the western coal fields, and three are in what is known as the Purchase, the extreme western end of the state, a fairly rich agricultural region.

In none of the communities is there a large foreign population, and in no case is the situation complicated by the colored population, since the state demands separate school accommodations for the two races.

The total enrollment of the schools studied was 1487. Of these 871 or 58.5 % were from graded schools, while 616, or 41.5 % were from the one-room schools.



## II.

## THE AREA SERVED BY THE SCHOOLS INVESTIGATED

The distance traveled by pupils coming to the high schools from the country varied from less than <sup>2</sup>/<sub>7</sub> mile in a few cases to twelve miles in a number of cases. The average distance traveled by the 110 pupils from the one-room schools was 4.95 miles, the median distance 4.8 miles. Seventy-eight of these pupils or 70.9 % of the whole number boarded at home, and the average distance traveled by them was 3.63 miles, while the remaining thirty-two who did not board at home traveled an average of 8.2 miles to reach school.

In order to obtain an idea as to how well this high-school enrollment compares with the average for the state we may make the following calculation. The six counties in which are located the schools sending the reports from which the statement made above was taken had an eighth-grade enrollment the year before these facts were gathered of one pupil for each two square miles of area. If we take the area of a circle of five miles radius, less a circle of one-mile radius, we will find that these six schools draw their high-school attendance, aside from those within the radius of one mile, from an area of 75 square miles each, or a total area of 450 square miles. According to the average for the counties 225 pupils ought to have been enrolled in the eighth grade the year before the facts we are considering were gathered. In the state as a whole, outside of the larger towns and cities, we find from the report of the State Superintendent, that 22,857 pupils were enrolled in the eighth grade and







10,057 in high schools, the total high-school enrollment being 45 % of the annual eighth-grade enrollment. In these areas 110 pupils are enrolled in the four years of the high school to an estimated 225 enrolled in the eighth grade, or 48.8 % which is 3.8 % better than the average for the state which include smaller cities and towns.

From the above statements it seems that the one-room pupils enrolled in the high schools are about of the same degree of selection as are the high school pupils coming from the smaller graded schools with which they are compared in school standing.



## III.

## SOCIAL AND ECONOMIC STATUS OF PARENTS

Further evidence in regard to this matter is brought out by the answers to certain parts of the second questionnaire sent out.

The following table represents the facts gathered from the three questions:

1. Is the father uneducated, poorly educated or well educated?
2. Is the father a leading citizen in his community?
3. Is the father poor or well-to-do?

<u>Condition of Father.</u>	<u>One-room School</u>			<u>Graded School</u>		
Father uneducated	11	or	9.5%	7,	or	4.6 %
Father poorly educated	83	"	71.5%	94,	"	62.3 %
Father well educated	22	"	19.0%	50,	"	33.0 %
	Yes,	66,	56.2%	85,	"	55.2 %
Father leading citizen	No,	50,	43.8%	69,	"	44.8 %
Father poor	26,	or	23.0%	59,	"	38.0 %
Father well-to-do	87,	"	77.0%	96,	"	62.0 %

The above figures show quite clearly that the pupils from the open country are little, if any, more a selected group than those from the villages or towns. The fathers are practically equal in their standing in the communities in which they live, there being only 1 % difference, too little to have meaning when we are dealing with opinions, not exact data. The general level of education is very much in favor of the parents of the graded school pupils, especially in the per cent of those ranked as well educated. The financial standing is in favor of the fathers of the one-room pupils, though we must bear in mind that a man with a home of his own and land in the country is often reckoned



well-to-do when he has no more ready money to use in educating his children than many a poor man who works for wages. Of these factors without question the most important is the education of the father, so that we find that we have no right to attribute any advantageous showing of the one-room pupils to their being selected from a better class of homes than the graded pupils.





## IV.

## THE TIME SPENT BY PUPILS IN THE ELEMENTARY SCHOOLS

The average age of the 871 pupils from the graded schools at the time of entering high schools was 14.45 years, and of the 618 pupils from the one-room schools was 15.72 years, or a difference of 1.27 years in favor of the graded school pupils.

The average length of the school term for graded-school pupils is eight months, and was, up to the school year of 1915, six months for the one-room schools. The age of entrance in both cases is ordinarily six years, so that the graded pupils were almost exactly at age, and the one-room pupils a little more than a year retarded on the average. If we multiply the length of the elementary-school year in each case by the number of years spent in it, we find that the graded school pupils had an average of 67.5 months of elementary schooling as against 58.28 months for the one-room pupils. This gave the graded school pupils the advantage of 9.22 months of elementary schooling.



## V.

## STRENGTH AND WEAKNESS OF ONE-ROOM PUPILS

The question regarding the strongest and weakest points found in the pupils prepared in the one-room schools brought out quite uniform replies. Out of the twenty-one principals reporting, sixteen gave mathematics as the strong point in these pupils, two gave history, one gave spelling, one divided his statement, giving boys as strongest in mathematics and girls in language, and one was in doubt.

The subject in which the one-room pupils were poorest was reported as English by eighteen, as science by one, Latin by one, and the boys poorest in mathematics by one.

This striking agreement was little less uniform than the statement of the cause that produced the condition, which, by fourteen was given as poorly-trained teachers. Many mentioned the fact that arithmetic had been learned in spite of poor teaching because of the popular demand for it, and the interest pupils had in it from the practical side.



## VI.

THE RANKING OF PUPILS FROM THE TWO TYPES OF SCHOOLS IN  
VARIOUS WAYS AS A MEANS OF COMPARISON

The question bringing out some of the most interesting points was the one asking the principal and teachers to rank the one-room pupils as higher than, equal to, or lower than the graded school pupils in a number of points. It might be well to say at this point that in cases where an opinion concerning pupils was desired, the opinion was of the principal alone in eleven cases, and with other teachers concurring in ten cases. In all forty-six persons concurred in the opinions. Four of the principals were in their positions for the first year, five for the second year, two for the third year, five for the fourth year, two for the fifth year, and one each for the sixth, seventh, and eighth years.

The following table will present the opinions of the principals and teachers given in answer to the question: Do the one-room pupils rank higher than, equal to, or lower than the pupils from the graded school in the following points:

QUALITIES	RANKING					
	Higher than-		Equal to-		Lower than.	
	NO.	%	NO.	%	NO.	%
Health and vigor	15	71.43	6	28.57	0	0
Mental ability	6	30.00	13	65.00	1	5.00
General scholarship	6	28.57	5	23.82	10	47.61
Athletic ability	2	10.00	7	35.00	11	55.00
Obedience to school authority	15	71.30	3	14.28	3	14.28
Application to study	16	76.19	3	14.28	2	9.53
Purpose in life	11	52.38	7	33.33	3	14.28
Honesty and truthfulness	12	57.14	8	38.10	1	4.76





Brief comments upon certain features of these figures may not be out of place at this point.

Though it certainly can not be credited to the schools of the open country, yet we must be struck with the large number of answers giving a higher place to the one-room pupil in health and vigor than to the pupil from the graded school. The explanation of this matter must evidently come from a consideration of the effects of the farm life upon habits and health.

It is but natural that the ranking of the two classes of pupils as regards mental ability should be very even. The slight advantage in favor of the one-room pupils may indicate a certain amount of selection not found in the graded schools of villages and towns, though we must bear in mind that such a selection was not indicated by the education and position of the fathers.

The very low ranking of the one-room pupils in general scholarship doubtless grows out of the more poorly organized rural schools, the shorter terms, and the meager training and experience of the teachers; while the low score on athletic ability is quite in accordance with the small amount of team-play and organized sports through the country districts. The country boy has strength and health, but it has not been directed toward athletics because of his greater isolation.

In the four moral characteristics we see the most marked cases of superior ranking of the one-room pupils. The very close correspondence between the rankings in obedience and application to study probably indicates that in the mind of the



teacher or principal these two characteristics are essentially one. The pupil who has the spirit of obedience often studies because of this spirit, while the pupil who is deeply interested in his studies may be obedient because no desire to disobey becomes strong enough to overcome his interest.

The close correspondence between purpose in life and honesty and truthfulness are probably associated in the same way. Rigid ideals regarding honesty and truthfulness may bring about such an attitude toward school life that it will serve as a motive power to secure purposful living; while on the other hand a dominating desire to do a certain thing may stimulate to honesty as the best policy where there is no highly sensitive group of moral standards to which the student would be true.

Whatever the relations of these four characteristics may be, certainly all will agree that these elements in character are what most frequently underlies the lives of our finest people; and we can not look lightly upon evidence that pupils from our one-room schools of the open country, in spite of their disadvantages, stand so high in these features.

It will be interesting here to refer to the results obtained from the same questionnaire sent to a few schools in Minnesota.

These Minnesota schools are representative of all sections of the state, and enrolled from 90 to 360 pupils. Twelve replies were received, and the results were as follows:

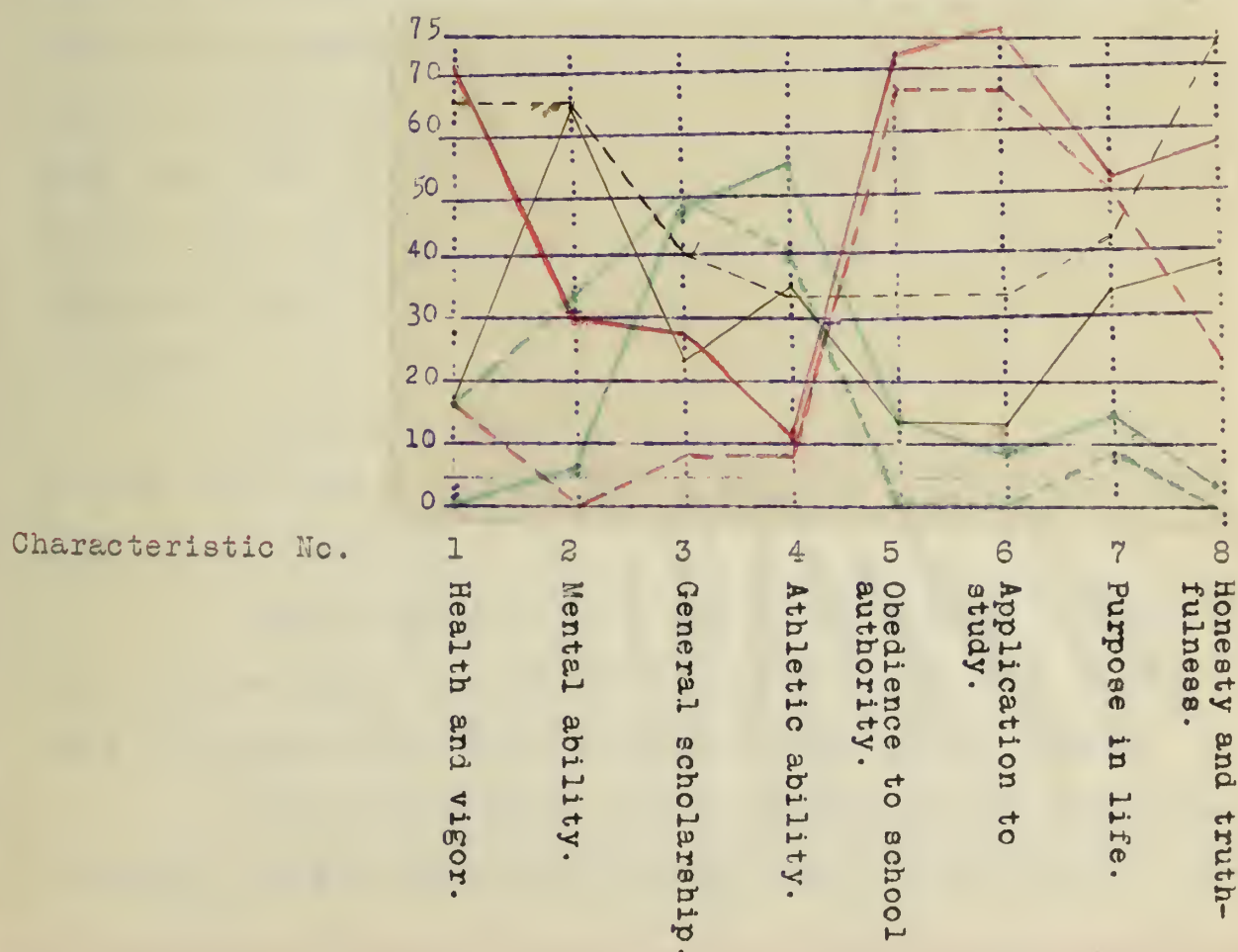




Qualities	RANKINGS					
	Higher than-		Equal to-		Lower than.	
	No.	%	No.	%	No.	%
Health and vigor	2	16.66	8	66.66	2	16.66
Mental ability	0	0	8	66.66	4	33.33
General scholarship	1	8.33	5	41.66	6	50.00
Athletic ability	1	8.33	4	33.33	7	41.66
Obedience to authority	8	66.66	4	33.33	0	0
Application to study	8	66.66	4	33.33	0	0
Purpose in life	6	50.00	5	41.66	1	8.33
Honesty and truthfulness	3	25.00	9	75.00	0	0

To show the relation of the rankings in the two states the figures may be presented in graphic form:

Red lines indicate ranking of one-room pupils higher than graded-school pupils; black lines ranking of the two types as equal; green one-room pupils lower than graded pupils. Solid lines are for Kentucky; broken lines for Minnesota.







In answer to the question, "does the pupil who stands highest in each of the following come from the one-room school or graded school?" the table below shows the results obtained both from Kentucky and Minnesota.

Subject	Highest standing given to one-room school pupils		Highest standing given to graded school pupils	
	Ky.	Minn.	Ky.	Minn.
English	23	10	55	33
Mathematics	43	14	34	24
History	29	12	48	21
Sciences	36	17	35	21
Latin	16	3	51	26
Leadership	28	77	46	27

As has been stated before 58.5 % of the pupils enrolled in the schools used in the study came from the graded schools and 41.5 % from the one-room schools. If we take the scholarship standings shown in the table above, excluding the relative scores on leadership, we find that one-room pupils have been given first place by teachers and principals in 40% of the cases and graded-school pupils in 60%. This is remarkably close to the relative numbers enrolled from each type of school.

The twelve schools from Minnesota which reported had a total enrollment of 1578 pupils, 440, or 21.54% of whom were from one-room schools.

Again taking the five school subjects we find that the one-room pupils carried off 56 points, or 30.94 %, a per cent 9.4 greater than their relative number in the schools.

The last question, asking whether the pupil standing highest in general scholarship in each year of high school came



from the one-room or graded school brought out the results given below.

	Ky.	Minn.
Highest place to one-room pupils	37	11
" " " graded "	45	32

In Kentucky these results, when expressed in per cents, give the one-room pupils 45.12 % of the first places, while their enrollment ratio is 41.5; and Minnesota gives 25.57 % to them while the one-room enrollment is only 21.54% of the total.

The results obtained from these two questions are very significant because of the fact that the process of eliminating the indifferent pupil of low mental ability, which may have taken place to an extent sufficient to affect results in other comparisons, could not have figured here, because it was a case of the best from each type of school meeting each other in competition. If the pupils from the two types of schools had been equally good in their classes we should have expected to find the proportion of pupils from each receiving highest standing about the same as the enrollment in school. Only in the case of the first-rank pupils in the different subjects obtained from Kentucky is this equality approximate. In the other cases the difference is enough to indicate a slight superiority in scholarship on the part of the one-room pupils.

Presented graphically we have the following results:



Per cent of	:	10	20	30	40	50	60	70
graded school:	:	:	:	:	:	:	:	:
pupils, Ky.	:	*****	*****	*****	*****	*****	*****	*****
Per cent of	:	:	:	:	:	:	:	:
one-room	:	:	:	:	:	:	:	:
pupils, Ky.	:	*****	*****	*****	*****	*****	*****	*****
	:	:	:	:	:	:	:	:
Per cent of	:	:	:	:	:	:	:	:
first places	:	:	:	:	:	:	:	:
to graded	:	:	:	:	:	:	:	:
school pupils:	:	:	:	:	:	:	:	:
Kentucky.	:	*****	*****	*****	*****	*****	*****	*****
Same for one-	:	:	:	:	:	:	:	:
room school	:	:	:	:	:	:	:	:
pupils.	:	*****	*****	*****	*****	*****	*****	*****
	:	:	:	:	:	:	:	:
Per cent of	:	:	:	:	:	:	:	:
first ranks	:	:	:	:	:	:	:	:
in general	:	:	:	:	:	:	:	:
scholarship	:	:	:	:	:	:	:	:
from graded	:	:	:	:	:	:	:	:
pupils, Ky.	:	*****	*****	*****	*****	*****	*****	*****
Same for one-	:	:	:	:	:	:	:	:
room pupils.	:	*****	*****	*****	*****	*****	*****	*****
	:	:	:	:	:	:	:	:





## VII

A COMPARISON OF THE GRADES MADE BY PUPILS FROM THE TWO TYPES  
OF SCHOOLS STUDIED

In order that the opinions of the principals and teachers gathered by the first questionnaire might be checked, a second sheet was sent to each of the twenty-one schools with the highest rural enrollment, - those considered in the former pages. From these sheets was obtained some of the information already presented, relating to the character of pupils in attendance, distance of homes from the school attended, etc. They also supplied the grades of the two types of pupils for specific comparison as to class standing in the various subjects.

In a few cases the principals sent in all of the grades of each type of pupil, but in a number of cases the first ten names of those of each type were taken. Such a random sampling was considered as satisfactory for averages, and required a much smaller amount of work on the part of the person reporting.

The following table presents the averages and medians for the different subjects reported, as well as the number of pupils reported in each subject.

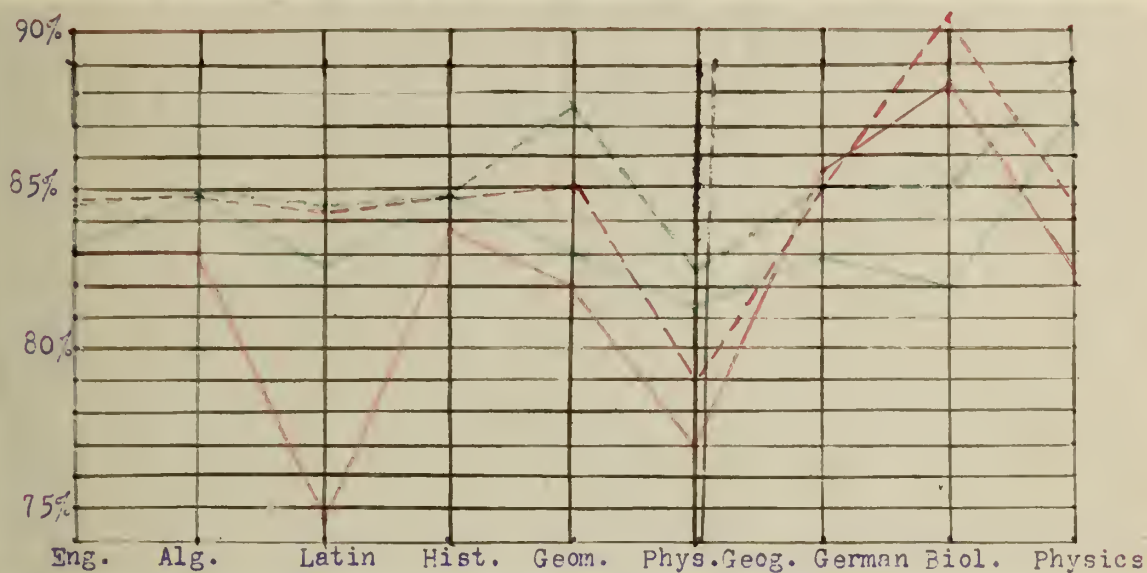


SUBJECT	Number enrolled		Averages		Median	
	GR.	OR*	GR.	OR*	GR.	OR*
English	163	13	83.00	83.17	84.73	84.57
Algebra	160	88	83.00	84.72	84.70	84.95
Latin	147	90	74.46	82.67	84.27	84.50
History	117	86	83.75	84.79	84.65	84.75
Geometry	58	30	82.01	83.10	85.00	87.50
Phys. Geog.	42	30	77.00	81.43	79.00	82.50
German	32	29	85.50	82.86	85.00	85.00
Biology	23	16	88.09	82.00	90.32	85.00
Physics	18	15	82.38	87.26	84.50	89.00

\*OR - One-Room school.

A careful examination of these grades will show that they are very similar for each type of pupil. In averages the one-room pupils outrank the graded school pupils in seven out of nine subjects. The difference is less than 1% in one of these, between 1% and 2% in three and more than 4% in three. In medians the one-room pupils hold the highest rank in six subjects, are equal in one, and below in two. The differences, however, in English, algebra, Latin and history are so small that they are really equal; while in geometry, physical geography, and physics, the advantage is strongly in favor of the one-room pupils, and in German and biology it is as positively in favor of the graded pupils. The graphic presentation below will help to bring out these relations more clearly.





The red lines represent the graded schools and the green the one-room schools. Solid lines represent averages, and broken lines medians.

### VIII

#### THE DISTRIBUTION OF GRADES

An analysis of the distribution of grades brings out the fact that the pupils from the graded schools have a wider range of marks than those of the one-room schools.

This is shown in the following table.







	% Be- low 60	% 60-64	% 65-69	% 70-74	% 75-79	% 80-84	% 85-89	% 90-94	% 95-100
English	Gr. 2.48 OR 0.00	3.73 3.76	3.73 4.51	1.86 3.76	13.66 8.27	11.18 23.55	34.15 30.37	21.75 19.30	7.47 6.77
Algebra	Gr. 3.12 OR 1.26	3.12 3.80	3.75 5.06	1.87 3.80	13.75 18.98	11.88 17.71	33.75 26.56	21.87 22.77	6.88 12.65
Latin	Gr. 4.08 OR 1.12	5.44 3.36	4.08 4.48	8.48 3.36	11.56 17.92	14.28 14.56	13.00 23.52	25.16 20.16	9.52 11.23
History	Gr. 1.89 OR 0.00	1.89 1.18	1.66 1.18	6.64 4.72	11.62 15.34	14.11 15.34	24.07 28.32	24.90 20.06	9.96 14.16
Geometry	Gr. 3.49 OR 0.00	6.90 10.00	3.49 10.00	10.34 0.00	12.07 6.66	12.07 6.66	12.07 20.00	22.41 20.00	17.24 26.64
German	Gr. 3.12 OR 0.00	33.12 3.45	3.12 3.45	6.25 6.89	12.50 20.69	12.50 13.80	37.50 24.14	15.37 13.79	6.25 13.79
Phys. Geog.	Gr. 0.00 OR 0.00	0.00 0.00	5.88 0.00	5.88 0.00	29.40 6.67	17.64 20.00	17.64 26.66	17.64 40.00	5.88 6.67
Biology	Gr. 0.00 OR 0.00	0.00 0.00	0.00 6.25	8.69 0.00	4.35 25.00	4.35 6.25	17.39 56.25	53.16 6.25	13.04 0.00
AVERAGE	Gr. 1.14 OR .33	1.51 1.59	4.00 4.37	6.25 2.82	13.61 14.94	12.25 14.60	26.14 29.48	25.28 20.29	9.53 11.49

°O.R. - One-room schools.



## SUMMARY

In summarizing the results obtained from the study, the following points may be considered as established or at least indicated by the evidence in the case.

1. The one-room schools cause a loss in time, getting the pupil ready for high school more than a year later than the graded school; but when actual time is counted almost a year less time is spent in school by the one-room pupils than by those from the graded school before entering high school.
2. The high schools from which reports were received serve an area almost 10 miles in diameter, but the pupils from the outer zone, more than 3.63 miles distant, do not board at home. Home-school advantages are afforded to only 70.9% of those in attendance from the country districts. In Kentucky four miles seems to be the limit of home service from a high school.
3. About the same number of high-school pupils was drawn from the country districts in the cases studied as from the town and village districts, in proportion to the eighth-grade enrollment of each.
4. The fathers of the pupils from the one-room schools are about equal to the fathers of graded-school pupils in standing in their communities, below them in education, but above them in prosperity.
5. The one-room pupils are quite uniformly given as





strongest in mathematics and weakest in English.

6. The one-room pupils were quite generally placed below the graded school pupils in athletic ability and general scholarship, equal to them in mental ability, and markedly above them in the four moral characteristics, - obedience, application, purpose in life, and honesty. In the reports from Minnesota one-room pupils largely out-ranked the graded pupils in obedience, application, and purpose, but in the other five characteristics were mostly ranked as equal to them.

7. Where the best student in each of five major subjects of each year, and the best all-around student for each year, were selected, one-room pupils scored within 1.5% of their relative proportion in the former, and 3.62% above their relative number in the latter.

8. In the nine subjects having the largest enrollment, one-room pupils held the highest average grade in seven, graded school pupils in two, and the average of the averages gave the one-room pupils 83.55% and the graded pupils 82.13%.

In median marks the one-room pupils were the highest in six subjects, equal in one, and below in two. The average median grade for the nine subjects gave the one-room pupils 85.31% and the graded pupils 84.68%.

9. In distribution of marks there was no wide variation, though the one-room pupils tend to pile up a little more between 75% and 90%.





## CONCLUSIONS

While it is the purpose of this thesis to present facts rather than to reflect the opinion of the writer in regard to the meaning of these facts, it may not be out of place to conclude with a few remarks as to what seems to be the bearing of the data secured upon rural education.

In the first place it seems that there is to be gathered from the study encouragement for the more than 200,000 communities served by one-room schools in the United States, especially those located where consolidation will, for some time, at least, not be feasible. In spite of the fact that Kentucky is behind in education, especially in its rural schools, the pupils from these schools, with a short term and poorly paid and trained teacher, have not only held their own, but slightly surpassed those from the graded schools of towns and villages supposedly having the advantage of them.

Though some of the success of the one-room pupils doubtless is to be credited to the fact that they are the strong students from the districts represented, yet this does not account for the fact that in every case where this feature was entirely eliminated by comparing the best of each type, they hold their own or have a slight advantage, not only in Kentucky but in Minnesota as well. It may be well to remark here, also, that in Kentucky there is, as yet, much less of the high school habit, either in the small towns or open country, which in many sections causes pupils to attend high school as a social custom rather



than through any recognized desire for more education. This would tend to make the character of the two types of pupils more nearly the same, and account for the fact that there was no evidence to show that the children from the country came from homes of a better type than those from the towns.

It is not to be concluded that, merely as a school, the one-room school is doing better work at the present time than the graded schools with a number of teachers, so it may well be asked. What accounts for the strength and character shown by the open country pupils?

While it was not the purpose of this study to secure data for determining this matter, the writer may be pardoned for making a few suggestions relative to the point in question.

The teacher, the equipment, the length of term, can not account for the showing of the open-country pupil. We must look to environment and peculiarities of school organization for the key.

As regards rural and town environments in their relation to character and scholarship it may be sufficient to point out that the farm is unusually rich in situations which demand individual solution on the part of the boy or girl. The town child is hedged about by laws, rules, restrictions, until he can develop resourcefulness only by going contrary to social mandates, and when he does this he must become antagonistic to social organization. This, alone, may be enough to make the difference.





In school organization the distinguishing feature of the one-teacher school is that the whole range of the elementary school is going on daily before the eyes of all. Where teaching of any degree of force is done it usually attracts pretty much the whole school. Younger pupils obtain a preview of what is coming to them in the future, while older pupils have many reviews of the ground they have covered as they watch lower classes recite. No school is better adapted to the bright pupil who can skip a grade occasionally, and grade skipping is common in these schools.

Whatever attitude may be taken by the reader, the fact remains that the results of this investigation correspond quite well with others which have been made along this line, all going to show that the pupil from the school of the open country has the advantage over the pupil from the more highly organized school of the village or town. Can this open-country life be brought into the more complex school organized with many teachers, and yet preserve the virility coming from the freedom of the farm? This is a question which must be answered, and it should be upon the character of the answer worked out by those engaged in studying such conditions that the future development of the school of the open country must be worked out. Indiana expends an average of \$19.63 for transporting pupils to consolidated schools. What might be the results if this added amount should go to the teacher of a one-room rural school to pay her for better training and a longer school term? The question

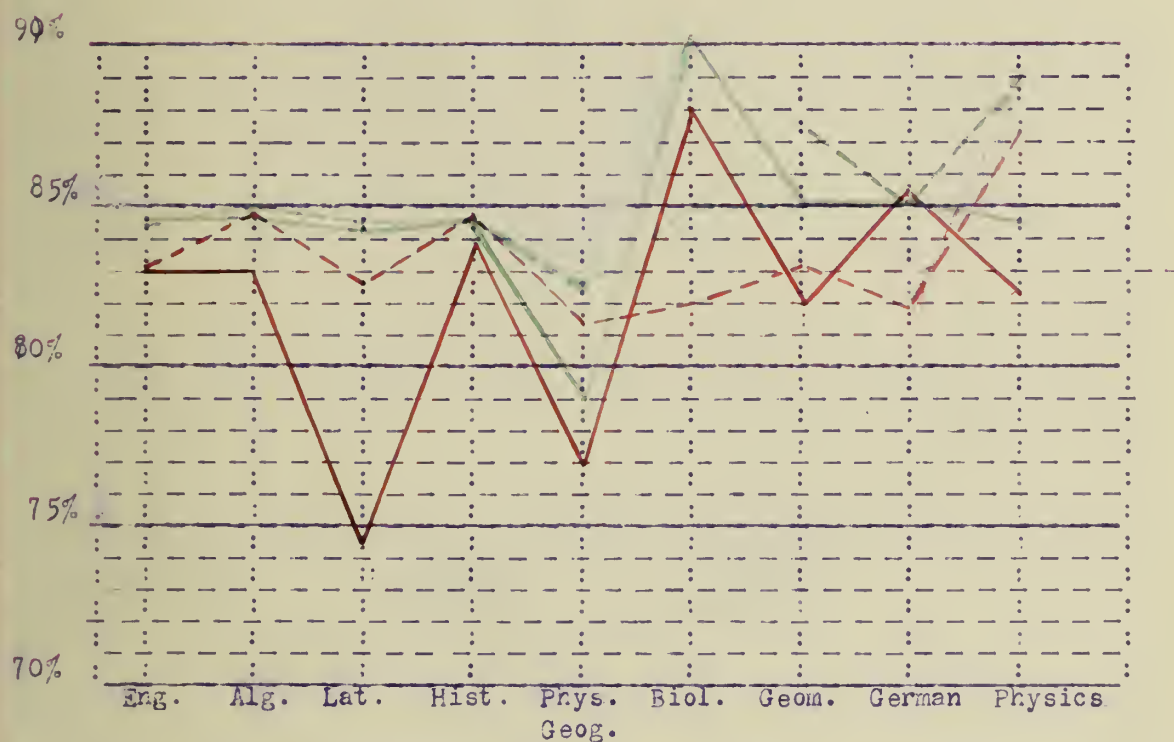




can not be answered now, but it seems self-evident that those who are most deeply interested in rural school development should give this matter full consideration before abandoning the idea of making the one-teacher, though probably not one-room school, a most efficient educational force.



## APPENDIX

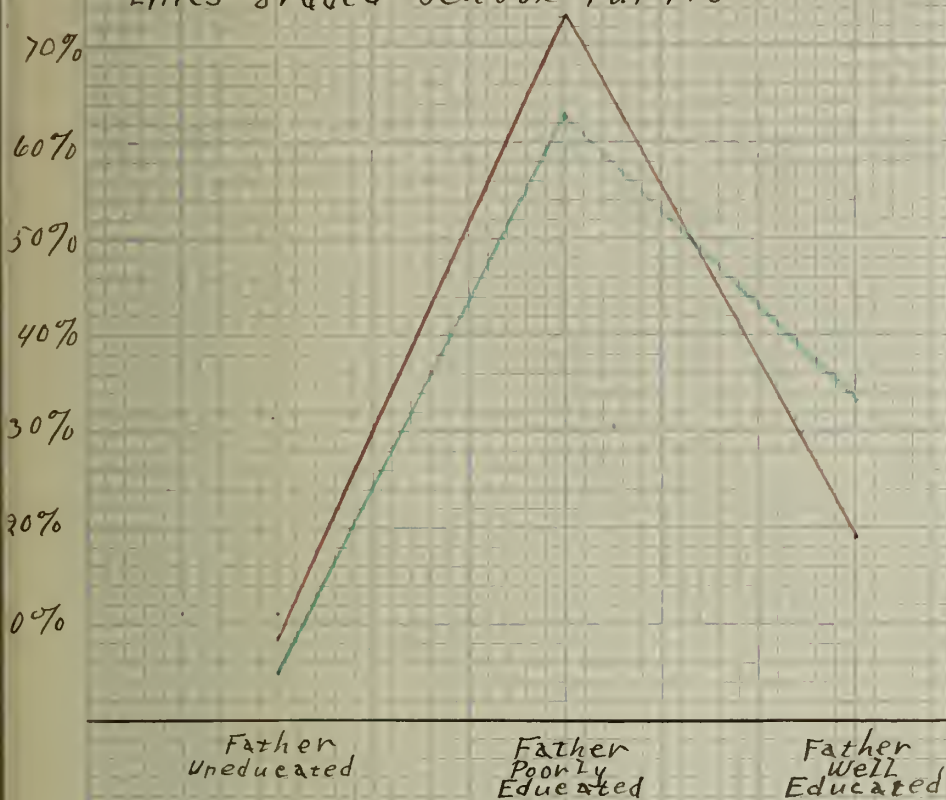


Curves showing the median and average grades made by pupils from the one-room school and the graded school. Medians are shown in green, averages in red, one-room marks by broken lines, graded school marks by solid lines.

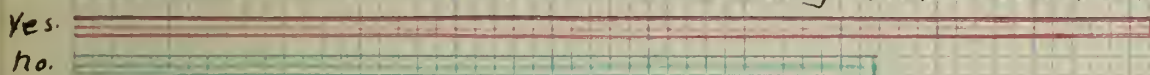




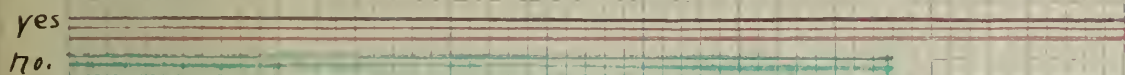
Curves showing education of fathers of one-room and graded school pupils. Red line indicates one-room pupils, green lines graded school pupils.



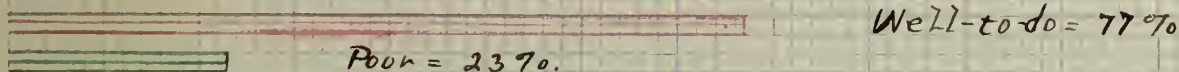
In answer to the question, "Is father a leading citizen," for fathers of one-room pupils 56.2% of answers were yes, 43.8% were no.



For graded school pupils the same question was answered 55.2% yes, 44.8% no.



In answer to the question, "Is father poor or well-to-do," for fathers of one-room pupils was as shown below.



For graded school pupils the same question brought out the following.

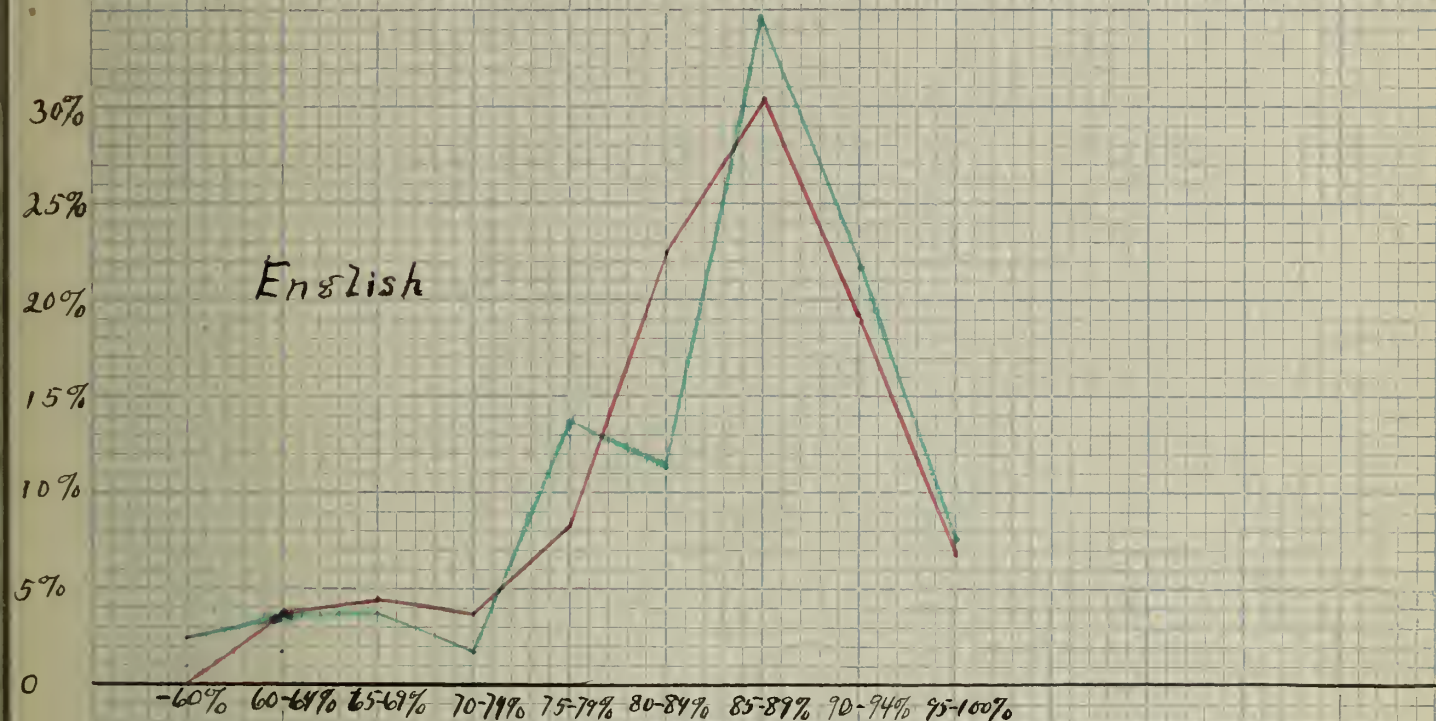




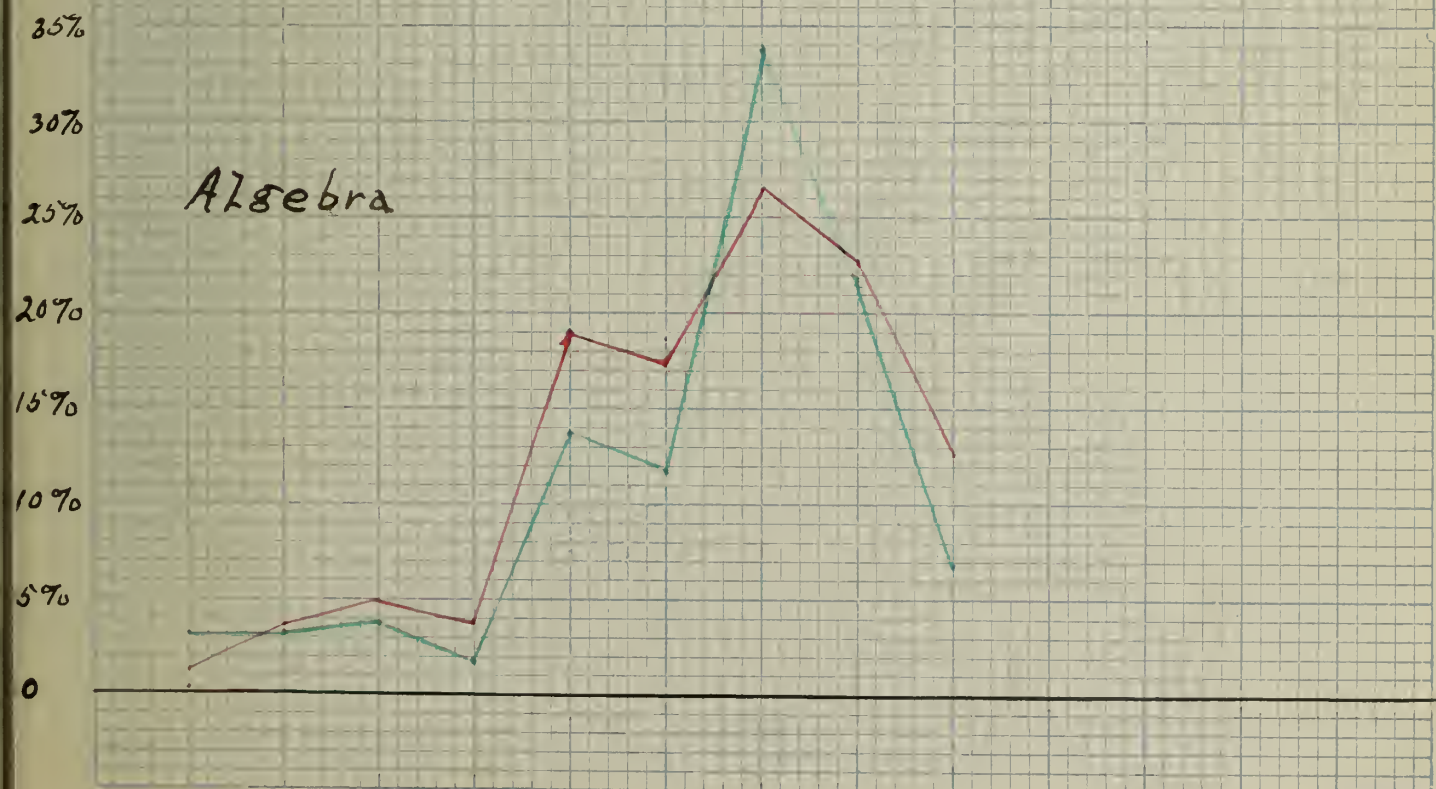


Curves showing distribution of grades in four subjects of large enrollment. Red lines indicate pupils from one-room schools, green those from graded schools.

### English



### Algebra

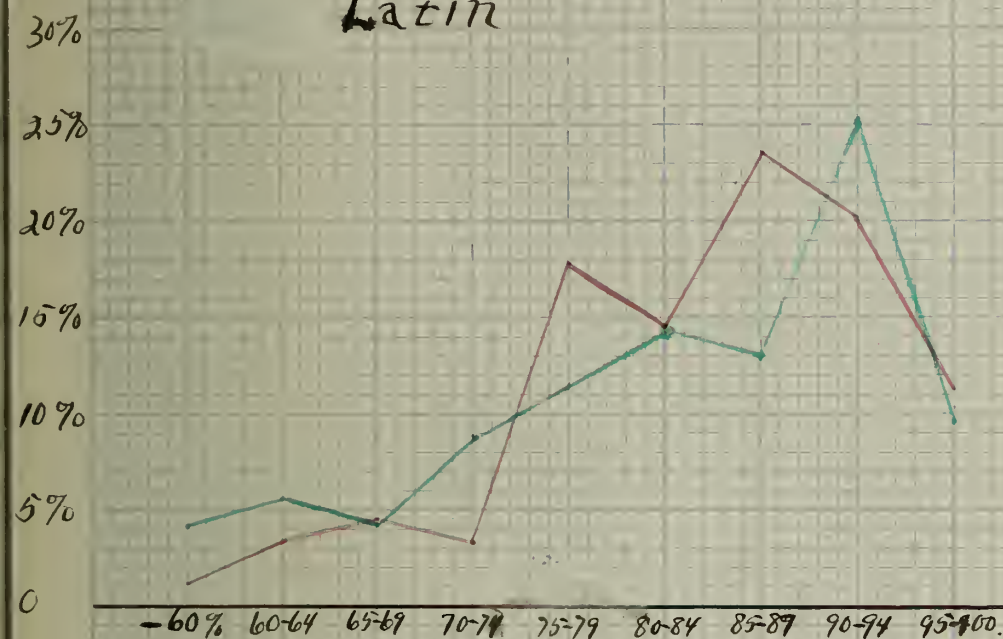






# Distribution of grades, continued.

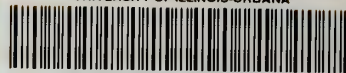
## Latin



## History.



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